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ABSTRACT OF THE DISCLOSURE

In a wireless communication system, coded bits (Y_t) and an interleaved version of the coded bits (X_t) are separately modulated and transmitted. On the receiver side, a priori output probabilities produced by a probability generator (34) are combined (112) and then input to a SISO decoder (111). Combined a posteriori output probabilities (115) produced by the SISO decoder are split (113) and then fed back to the probability generator.